JOURNAL OF BIOMEDICAL MATERIALS RESEARCH

APPLIED BIOMATERIALS

INDEX TO VOLUME 63

SPRING–WINTER 2002

JOURNAL OF BIOMEDICAL MATERIALS RESEARCH

APPLIED BIOMATERIALS

INDEX TO VOLUME 63

SPRING–WINTER 2002

Journal of Biomedical Materials Research (Applied Biomaterials) Author Index to Volume 63

Abe, K.
—; Ono, I.: A Comparison of the Shapes of Hydroxyapatite Implants before and after Implantation, 312
About, I.
—; Camps, J.; Mitsiadis, T. A.; Bottero, M.-J.; Butler, W.; Franquin, J.-C.: Influence of Resinous Monomers on the Differentiation *in Vitro* of Human Pulp Cells into Odontoblasts, 418
Adachi, N. See Uchio, Y., 173
Afsar-Keshmiri, A. See Mabrey, J. D., 475
Agrawal, C. M. See Mabrey, J. D., 475
—; See Yamashita, J., 31
Ahite, D. See Lefebvre, F., 441
Aho, A. J. See Lindfors, N. C., 237
Aleksić, R. See Balać, I., 793
Alexander, H. See Frenkel, S. R., 706
Alifragis, J. See Baritaki, S., 830
Anselme, K. See Cornet, F., 400
Anseth, K. S. See Burdick, J. A., 484
Aoki, T. See Watanabe, I., 760
Araki, Y. See Hashimoto, M., 306
Armstrong, R. See Turner, A. S., 37

Baker, D. A. See Moffitt, T. P., 722
Balać, I.
—; Uskoković, P. S.; Aleksić, R.; Uskoković, D.: Predictive Modeling of the Mechanical Properties of Particulate Hydroxyapatite Reinforced Polymer Composites, 793
Baldini, N. See Savarino, L., 467
Balducci, C. See Lilli, C., 577
Baritaki, S.
—; Tzanakakis, G. N.; Alifragis, J.; Zafiropoulos, A.; Tashmukhamedov, R. I.; Tsatsakis, A.; Shtilman, M. I.; Rizos, A. K.; Krambovitis, E.: Light Scattering and *In Vitro* Biocompatibility Studies of Poly (Vinyl Pyrrolidone) Derivatives with Amino-Acid-Dependent Groups, 830
Barralet, J. E.
—; Gaunt, T.; Wright, A. J.; Gibson, I. R.; Knowles, J. C.: Effect of Porosity Reduction by Compaction on Compressive Strength and Microstructure of Calcium Phosphate Cement, 1
Bauer, J. See Shi, D., 71
Becchetti, E. See Lilli, C., 577
Belcastro, S. See Lilli, C., 577
Belkoff, S. M.
—; Sanders, J. C.; Jasper, L. E.: The Effect of the Monomer-to-Powder Ratio on the Material Properties of Acrylic Bone Cement, 396
Bellón, J. M.
—; Jurado, F.; García-Moreno, F.; Corrales, C.; Carrera-San Martin, A.; Buján, J.: Healing Process Induced by Three Composite Prostheses in the Repair of Abdominal Wall Defects, 182
Berg, R. A. See Liu, L.-S., 326
Berthusen, A. H.
—; Tucker, R. D.; Park, J. B.: A Field-Focusing Device to Increase Power Output of ThermoRod™ Implants for Thermal Ablation of Tissue, 650
Bevers, R. T. J. See Peerlings, C. C. L., 692
Bignon, A.
—; Chevalier, J.; Fantozzi, G.: Effect of Ball Milling on the Processing of Bone Substitutes with Calcium Phosphate Powders, 619
Boelen, E. J. H. See Peerlings, C. C. L., 692
Bonfield, W. See Vázquez, B., 88
Bottero, M.-J. See About, I., 418
Boudeville, P. See El Briak, H., 447
Boughner, D. R. See Wan, W. K., 854
Brès, E. F.
—; Hutchison, J. L.: Surface Structure Study of Biological Calcium Phosphate Apatite Crystals from Human Tooth Enamel, 433
Bresson, B. See Legrand, A. P., 390
Buchanan, F. J. See Kurtz, S. M., 15
Buffat, P. A. See Suvorova, E. I., 424
Buján, J. See Bellón, J. M., 182
Bumgardner, J. D.
—; Gerard, P. D.; Geurtsen, W.; Leyhausen, G.: Cytotoxicity of Precious and Nonprecious Alloys—Experimental Comparison of *In Vitro* Data from Two Laboratories, 214
Burdick, J. A.
—; Padera, R. F.; Huang, J. V.; Anseth, K. S.: An Investigation of the Cytotoxicity and Histocompatibility of *In Situ* Forming Lactic Acid Based Orthopedic Biomaterials, 484
Burger, E. H. See van Dijk, M., 752
Burrow, M. F. See Mazzaoui, S. A., 299
Butler, W. See About, I., 418

Cagna, D. R. See Chung, K.-H., 516
Calonius, O. See Saikko, V., 848
Cameron, R. E. See Ooi, C. P., 280, 291
Campbell, G. See Wan, W. K., 854
Campistron, P. See Lefebvre, F., 441
Camps, J. See About, I., 418
Capon, R. J. See Mazzaoui, S. A., 299
Carrera-San Martin, A. See Bellón, J. M., 182
Carroll, M. See Lewis, G., 191
Cenni, E. See Savarino, L., 467
Chan, E.-C. See Liu, S.-J., 807
Chen, S.-L. See Huang, T.-H., 814
Chen, Y.-C. See Kao, C.-T., 786
Chevalier, J. See Bignon, A., 619
Chi, E. Y. See Tsai, C.-H., 65
Chou, M.-Y. See Tsai, C.-H., 65
Chung, K.-H.
—; Duh, J.-G.; Shin, D.; Cagna, D. R.; Cronin, R. J., Jr.: Characteristics and Porcelain Bond Strength of (Ti,Al)N Coating on Dental Alloys, 516
Ciapetti, G. See Savarino, L., 467
Cima, M. J. See Koegler, W. S., 567
Claes, L. E. See Schmidt, C., 252
Cole, J. C.
—; Lemons, J. E.; Eberhardt, A. W.: Gamma Irradiation Alters Fatigue-Crack Behavior and Fracture Toughness in 1900H and GUR 1050 UHMWPE, 559
Colin, J. See Mortemousque, B., 686
Compañ, V. See López-Alemany, A., 319
Cooper, C. See Kurtz, S. M., 15
Cornet, F.
—; Anselme, K.; Grard, T.; Rouahi, M.; Noël, B.; Hardouin, P.; Jeanfils, J.: The Influence of Culture Conditions on Extracellular Matrix Proteins Synthesized by Osteoblasts Derived from Rabbit Bone Marrow, 400
Corrales, C. See Bellón, J. M., 182
Costa, I. See Lavos-Valereto, I. C., 664
Cronin, R. J., Jr. See Chung, K.-H., 516

Deb, S. See Vázquez, B., 88
Deblock, Y. See Lefebvre, F., 441
Dejou, J. See Lu, J., 408
De La Macorra, J. C.
—; Escribano, N. I.: Comparison of Two Methods to Measure Permeability of Dentin, 531
Delling, G. See Hahn, M., 354
Deng, Y.
—; Lawn, B. R.; Lloyd, I. K.: Characterization of Damage Modes in Dental Ceramic Bilayer Structures, 137
Dennis, M. See Frenkel, S. R., 706

Denry, I. L.
—; Holloway, J. A.: Effect of Additives on the Microstructure and Thermal Properties of a Mica-Based Glass-Ceramic, 146
—; Holloway, J. A.: Effect of Sodium Content on the Crystallization Behavior of Fluoramphibole Glass–Ceramics, 48
Descamps, M. See Lu, J., 408
Désévaux, C.
—; Dubreuil, P.; Lenaerts, V.; Girard, C.: Tissue Reaction and Biodegradation Of Implanted Cross-Linked High Amylose Starch in Rats, 772
Ding, S.-J. See Kao, C.-T., 786
Dubreuil, P. See Désévaux, C., 772
Duh, J.-G. See Chung, K.-H., 516
Durand, D. See El Briak, H., 447
Dutkiewicz, J. K.
—; Superabsorbent Materials from Shellfish Waste—A Review, 373

Eberhardt, A. W. See Cole, J. C., 559
Eckerdal, J. See Esposito, M., 548
Edidin, A. A. See Kurtz, S. M., 15, 492
Egbert, B. See Turner, A. S., 37
Eick, J. D. See Laughlin, G. A., 671
El Briak, H.
—; Durand, D.; Nurit, J.; Munier, S.; Pauvert, B.; Boudeville, P.: Study of a Hydraulic Dicalcium Phosphate Dihydrate/Calcium Oxide-Based Cement for Dental Applications, 447
Endo, K. See Mligiliche, N., 591
Endo, N. See Ogose, A., 601
Engelmann, J.
—; Leyhausen, G.; Leibfritz, D.; Geurtsen, W.: Effect of TEGDMA on the Intracellular Glutathione Concentration of Human Gingival Fibroblasts, 746
Engh, G. A. See Mabrey, J. D., 475
Escribano, N. I. See De La Macorra, J. C., 531
Esposito, M.
—; Kennergren, C.; Holmström, N.; Nilsson, S.; Eckerdal, J.; Thomsen, P.: Morphologic and Immunohistochemical Observations of Tissues Surrounding Retrieved Transvenous Pacemaker Leads, 548

Fabre, J. J. See Lefebvre, F., 441
Faldini, C. See Moroni, A., 61
Famery, R. See Legrand, A. P., 390
Fantozzi, G. See Bignon, A., 619
Flautre, B.
—; Maynou, C.; Lemaitre, J.; Van Landuyt, P.; Hardouin, P.: Bone Colonization of β-TCP Granules Incorporated in Brushite Cements, 413
Franquin, J.-C. See About, I., 418
Frenkel, S. R.
—; Simon, J.; Alexander, H.; Dennis, M.; Ricci, J. L.: Osseointegration on Metallic Implant Surfaces: Effects of Microgeometry and Growth Factor Treatment, 706
Fujibayashi, S. See Uchida, M., 522
Fujimoto, E. See Mligiliche, N., 591
Furman, B. R. See Yamashita, J., 31
Furze, J. D. See Lewis, A. L., 699

Gansky, S. A. See Staninec, M., 342
Gao, C. See Ma, Z., 838
García-Moreno, F. See Bellón, J. M., 182
Gaunt, T. See Barralet, J. E., 1
Gerard, P. D. See Bumgardner, J. D., 214
Geurtsen, W. See Bumgardner, J. D., 214
—; See Engelmann, J., 746
Giannini, S. See Moroni, A., 61
Gibson, I. R. See Barralet, J. E., 1
Gilbert, J. L. See Wright, D. D., 152
Girard, C. See Désévaux, C., 772
Giunti, A. See Savarino, L., 467
Gong, Y. See Ma, Z., 838
Gower, L. B. See Malpass, C. A., 822
Graffan, R. See Mortemousque, B., 686
Granchi, D. See Savarino, L., 467
Grard, T. See Cornet, F., 400
Greer, K. See Kurtz, S. M., 15
Greil, P. See Lohbauer, U., 780
Griffith, L. G. See Koegler, W. S., 567
Gross, K. A.
—; Ray, N.; Røkkum, M.: The Contribution of Coating Microstructure to Degradation and Particle Release in Hydroxyapatite Coated Prostheses, 106
Gsell, R. See Kurtz, S. M., 15
Guidoin, R. See Legrand, A. P., 390

Haas, N. P. See Schmidmaier, G., 168
Hahn, M.
—; Nassutt, R.; Delling, G.; Mahrenholtz, O.; Schneider, E.; Morlock, M.: The Influence of Material and Design Features on the Mechanical Properties of Transpedicular Spinal Fixation Implants, 354
Hanssen, H. H. L. See Peerlings, C. C. L., 692
Hardouin, P.
—; Lemaître, J.; Jeanfils, J.: Editorial Comment: Interdisciplinary Research Conference on Biomaterials, 383
—; See Cornet, F., 400
—; See Flautre, B., 413
—; See Lu, J., 408
Hasegawa, T.
—; Iwasaki, Y.; Ishihara, K.: Preparation of Blood-Compatible Hollow Fibers from a Polymer Alloy Composed of Polysulfone and 2-Methacryloyloxyethyl Phosphorylcholine Polymer, 333
Hasegawa, Y.
—; Sakano, S.; Iwase, T.; Warashina, H.: The Long-Term Behavior of Poly-L-Lactide Screws in a Minipig Fracture Model: Preliminary Report, 679
Hashimoto, M.
—; Ohno, H.; Sano, H.; Tay, F. R.; Kaga, M.; Kudou, Y.; Oguchi, H.; Araki, Y.; Kubota, M.: Micromorphological Changes in Resin-Dentin Bonds after 1 Year of Water Storage, 306
Hatano, H. See Ogose, A., 601
He, Y.
—; Trotignon, J. P.; Loty, B.; Tcharkhtchi, A.; Verdu, J.: Effect of Antibiotics on the Properties of Poly(Methylmethacrylate)-Based Bone Cement, 800
Heidemann, D. See Szep, S., 53
Heo, S.-J. See Kong, Y.-M., 714
Herr, M. See Kurtz, S. M., 492
Hickel, R. See Walther, U. I., 643
Higgins, B. J. See Lewis, A. L., 699
Higham, P. See van Dijk, M., 752
Hilton, J. F. See Staninec, M., 342
Hirakawa, K. See Saito, T., 245
Hoffmann, J. See Schmidmaier, G., 168
Holloway, J. A. See Denry, I. L., 48, 146
Holmström, N. See Esposito, M., 548
Horch, K. W. See Lawrence, S. M., 501
Hori, T. See Saito, T., 245
Hotta, T. See Ogose, A., 601
Hua, F. J.
—; Kim, G. E.; Lee, J. D.; Son, Y. K.; Lee, D. S.: Macroporous Poly(L-lactide) Scaffold 1. Preparation of a Macroporous Scaffold by Liquid–Liquid Phase Separation of a PLLA–Dioxane–Water System, 161
Huang, J. V. See Burdick, J. A., 484
Huang, T.-H.
—; Tsai, C.-Y.; Chen, S.-L.; Kao, C.-T.: An Evaluation of the Cytotoxic Effects of Orthodontic Bonding Adhesives upon a Primary Human Oral Gingival Fibroblast Culture and a Permanent, Human Oral Cancer-Cell Line, 814
—; See Kao, C.-T., 786
Hui, A. J. See Wan, W. K., 854
Hutchison, J. L. See Brès, E. F., 433

Ide, C. See Mligiliche, N., 591
Ignatius, A. A. See Schmidt, C., 252
Ishihara, K. See Hasegawa, T., 333
Ishikawa, K. See Momota, Y., 542
Itoh, S.
—; Kikuchi, M.; Takakuda, K.; Nagaoka, K.; Koyama, Y.; Tanaka, J.; Shinomiya, K.: Implantation Study of a Novel Hydroxyapatite/Collagen (HAp/Col) Composite into Weight-Bearing Sites of Dogs, 507
Iwasa, J. See Uchio, Y., 173
Iwasaki, Y. See Hasegawa, T., 333
Iwase, T. See Hasegawa, Y., 679

Jandt, K. D. See Uhl, A., 729
Jasper, L. E. See Belkoff, S. M., 396
Jeanfils, J. See Cornet, F., 400
Jeanfils, J. See Hardouin, P., 383
Ji, J. See Ma, Z., 838
Jiang, G. See Shi, D., 71
Jonas, M. See Tsai, C.-H., 65
Junge, K. See Klinge, U., 129, 765
Jurado, F. See Bellón, J. M., 182

Kaga, M. See Hashimoto, M., 306
Kao, C.-T.
—: Ding, S.-J.; Chen, Y.-C.; Huang, T.-H.: The Anticorrosion Ability of Titanium Nitride (TiN) Plating on an Orthodontic Metal Bracket and Its Biocompatibility, 786
—: See Huang, T.-H., 814
Kaspar, D. See Schmidt, C., 252
Katsube, K. See Uchio, Y., 173
Kawanabe, K. See Tanaka, K., 262
Kawasaki, K. See Uchio, Y., 173
Kawashima, H. See Ogose, A., 601
Kehe, K. See Walther, U. I., 643
Kennergren, C. See Esposito, M., 548
Keränen, J. See Saikko, V., 848
Kessler, P. See Wiltfang, J., 115
Khor, E. See Wang, L., 610
Khor, K. A. See Thian, E. S., 79
Kikuchi, M. See Itoh, S., 507
Kim, C.-W. See Lee, Y.-K., 657
Kim, D.-H. See Kong, Y.-M., 714
Kim, G. E. See Hua, F. J., 161
Kim, H.-E. See Kong, Y.-M., 714
Kim, H. I. See Lee, J. H., 535
Kim, H.-M. See Uchida, M., 522
Kim, K. H. See Lee, J. H., 535
Kinney, J. H. See Staninec, M., 342
Kirkpatrick, S. J. See Moffitt, T. P., 722
Kisielewski, R. W. See Schwerin, M. R., 739
Kiyosue, S. See Watanabe, I., 760
Klinge, U.
—: Junge, K.; Spellerberg, B.; Piroth, C.; Klosterhalfen, B.; Schumpelick, V.: Do Multifilament Alloplastic Meshes Increase the Infection Rate? Analysis of the Polymeric Surface, the Bacteria Adherence, and the *In Vivo* Consequences in a Rat Model, 765
—: Junge, K.; Stumpf, M.; Öttinger, A. P.; Klosterhalfen, B.: Functional and Morphological Evaluation of a Low-Weight, Monofilament Polypropylene Mesh for Hernia Repair, 129
Kloss, F. R. See Wiltfang, J., 115
Klosterhalfen, B. See Klinge, U., 129, 765
Knowles, J. C. See Barralet, J. E., 1
Koak, J.-Y. See Kong, Y.-M., 714
Koegler, W. S.
—: Patrick, C.; Cima, M. J.; Griffith, L. G.: Carbon Dioxide Extraction of Residual Chloroform from Biodegradable Polymers, 567
Kokubo, T. See Tanaka, K., 262
—: See Uchida, M., 522
Kong, Y.-M.
—: Kim, D.-H.; Kim, H.-E.; Heo, S.-J.; Koak, J.-Y.: Hydroxyapatite-Based Composite for Dental Implants: an *In Vivo* Removal Torque Experiment, 714
Koole, L. H. See Peerlings, C. C. L., 692
Korobelnik, J. F. See Mortemousque, B., 686
Korthagen, E. J. M. See Peerlings, C. C. L., 692
Koshino, T. See Saito, T., 245
Kotz, R. M. See Schwerin, M. R., 739
Koubi, G. See Lu, J., 408
Koyama, Y. See Itoh, S., 507
Krambovitis, E. See Baritaki, S., 830
Kubota, M. See Hashimoto, M., 306
Kudou, Y. See Hashimoto, M., 306
Kunkel, A. See Szep, S., 53
Kuo, C.-J. See Lin, H.-R., 271
Kurtz, S. M.
—: Muratoglu, O. K.; Gsell, R.; Greer, K.; Shen, F. W.; Cooper, C.; Buchanan, F. J.; Spiegelberg, S.; Yau, S. S.; Edidin, A. A.: Interlaboratory Validation of Oxidation-Index Measurement Methods for UHMWPE after Long-Term Shelf Aging, 15
—: Turner, J. L.; Herr, M.; Edidin, A. A.: Deconvolution of Surface Topology for Quantification of Initial Wear in Highly Cross-Linked Acetabular Components for THA, 492
Kwon, Y. H. See Lee, J. H., 535
Kylmä, J. See Rich, J., 346

Lameiras, F. S. See Silva, V. V., 583
Larsen, J. O. See Lawrence, S. M., 501
Laughlin, G. A.
—: Williams, J. L.; Eick, J. D.: The Influence of System Compliance and Sample Geometry on Composite Polymerization Shrinkage Stress, 671
Lautenschlager, E. P. See Wright, D. D., 152
Lavos-Valereto, I. C.
—: Costa, I.; Wolynec, S.: The Electrochemical Behavior of Ti-6Al-7Nb Alloy with and without Plasma-Sprayed Hydroxyapatite Coating in Hank's Solution, 664
Lawn, B. R. See Deng, Y., 137
Lawrence, S. M.
—: Larsen, J. O.; Horch, K. W.; Riso, R.; Sinkjær, T.: Long-Term Biocompatibility of Implanted Polymer-Based Intrafascicular Electrodes, 501
Le, U. T.
—: Tucker, R. D.; Park, J. B.: The Effects of Localized Cold Work on the Heating Characteristics of Thermal Therapy Implants, 24
Lee, D. S. See Hua, F. J., 161
Lee, J. D. See Hua, F. J., 161
Lee, J. H.
—: Kim, H. I.; Kim, K. H.; Kwon, Y. H.: Effect of Bleaching Agents on the Fluoride Release and Microhardness of Dental Materials, 535
Lee, Y.-K.
—: Lim, B.-S.; Kim, C.-W.: Effect of Surface Conditions on the Color of Dental Resin Composites, 657
Lefebvre, F.
—: Deblock, Y.; Campistron, P.; Ahite, D.; Fabre, J. J.: Development of a New Ultrasonic Technique for Bone and Biomaterials *In Vitro* Characterization, 441
Leger, F. See Mortemousque, B., 686
Legrand, A. P.
—: Bresson, B.; Guidoin, R.; Famery, R.: Mineralization Followup with the Use of NMR Spectroscopy and Others, 390
Leibfritz, D. See Engelmann, J., 746
Lemaitre, J. See Flautre, B., 413
—: See Lu, J., 408
Lemaître, J. See Hardouin, P., 383
Lemons, J. E. See Cole, J. C., 559
Lenaerts, V. See Désévaux, C., 772
Lewis, A. L.
—: Furze, J. D.; Small, S.; Robertson, J. D.; Higgins, B. J.; Taylor, S.; Ricci, D. R.: Long-Term Stability of a Coronary Stent Coating Post-Implantation, 699
Lewis, G.
—: Key Issues Involved With the Use of Miniature Specimens in the Characterization of the Mechanical Behavior of Polymeric Biomaterials—A Review, 455
—: Carroll, M.: Rheological Properties of Acrylic Bone Cement During Curing and the Role of the Size of the Powder Particles, 191
Lewis, M. A. O. See Price, C., 122
Leyhausen, G. See Bumgardner, J. D., 214
—: See Engelmann, J., 746
Li, X. See Yamashita, J., 31
Liebl, B. See Walther, U. I., 643
Lilli, C.
—: Marinucci, L.; Stabellini, G.; Belcastro, S.; Becchetti, E.; Balducci, C.; Staffolani, N.; Locci, P.: Biomembranes Enriched with TGFβ_1 Favor Bone Matrix Protein Expression by Human Osteoblasts *in Vitro*, 577
Lim, B.-S. See Lee, Y.-K., 657
Lim, L. Y. See Wang, L., 610
Lin, H.-R.
—: Kuo, C.-J.; Yang, C. Y.; Shaw, S.-Y.; Wu, Y.-J.: Preparation of Macroporous Biodegradable PLGA Scaffolds for Cell At-

tachment with the Use of Mixed Salts as Porogen Additives, 271
Lin, S.-S. See Liu, S.-J., 807
Lin, W.-J. See Lu, C.-H., 220
Lindfors, N. C.
—; Tallroth, K.; Aho, A. J.: Bioactive Glass as Bone-Graft Substitute for Posterior Spinal Fusion in Rabbit, 237
Liu, L.-S.
—; Berg, R. A.: Adhesion Barriers of Carboxymethylcellulose and Polyethylene Oxide Composite Gels, 326
Liu, S.-J.
—; Ueng, S. W.-N.; Lin, S.-S.; Chan, E.-C.: *In Vivo* Release of Vancomycin from Biodegradable Beads, 807
Lloyd, I. K. See Deng, Y., 137
Lobato, Z. I. P. See Silva, V. V., 583
Locci, P. See Lilli, C., 577
Loh, N. H. See Thian, E. S., 79
Lohbauer, U.
—; Petschelt, A.; Greil, P.: Lifetime Prediction of CAD/CAM Dental Ceramics, 780
López-Alemany, A.
—; Compañ, V.; Refojo, M. F.: Porous Structure of Purevision™ versus Focus® Night&Day™ and Conventional Hydrogel Contact Lenses, 319
Loty, B. See He, Y., 800
Lu, C.-H.
—; Lin, W.-J.: Permeation of Protein from Porous Poly(ε-caprolactone) Films, 220
Lu, J.
—; Descamps, M.; Dejou, J.; Koubi, G.; Hardouin, P.; Lemaitre, J.; Proust, J.-P.: The Biodegradation Mechanism of Calcium Phosphate Biomaterials in Bone, 408
Lytle, C. D. See Schwerin, M. R., 739

Ma, Z.
—; Gao, C.; Gong, Y.; Ji, J.; Shen, J.: Immobilization of Natural Macromolecules on Poly-L-Lactic Acid Membrane Surface in Order to Improve Its Cytocompatibility, 838
Mabrey, J. D.
—; Afsar-Keshmiri, A.; Engh, G. A.; Sychterz, C. J.; Wirth, M. A.; Rockwood, C. A.; Agrawal, C. M.: Standardized Analysis of UHMWPE Wear Particles from Failed Total Joint Arthroplasties, 475
Mahrenholtz, O. See Hahn, M., 354
Malpass, C. A.
—; Millsap, K. W.; Sidhu, H.; Gower, L. B.: Immobilization of an Oxalate-Degrading Enzyme on Silicone Elastomer, 822
Manjubala, I.
—; Sivakumar, M.; Sureshkumar, R. V.; Sastry, T. P.: Bioactivity and Osseointegration Study of Calcium Phosphate Ceramic of Different Chemical Composition, 200
Marinucci, L. See Lilli, C., 577
Maroney, M. See Turner, A. S., 37
Marshall, G. W. See Staninec, M., 342
Marshall, S. J. See Staninec, M., 342
Maynou, C. See Flautre, B., 413
Mazzaoui, S. A.
—; Burrow, M. F.; Tyas, M. J.; Rooney, F. R.; Capon, R. J.: Long-Term Quantification of the Release of Monomers from Dental Resin Composites and a Resin-Modified Glass Ionomer Cement, 299
Merten, H. A. See Wiltfang, J., 115
Mills, R. W. See Uhl, A., 729
Millsap, K. W. See Malpass, C. A., 822
Mitsiadis, T. A. See About, I., 418
Miyamoto, Y. See Momota, Y., 542
Mligiliche, N.
—; Endo, K.; Okamoto, K.; Fujimoto, E.; Ide, C.: Extracellular Matrix of Human Amnion Manufactured into Tubes as Conduits for Peripheral Nerve Regeneration, 591
Moffitt, T. P.
—; Baker, D. A.; Kirkpatrick, S. J.; Prahl, S. A.: Mechanical Properties of Coagulated Albumin and Failure Mechanisms of Liver Repaired with the Use of an Argon-Beam Coagulator with Albumin, 722
Momota, Y.
—; Miyamoto, Y.; Ishikawa, K.; Takechi, M.; Yuasa, T.; Tatehara, S.; Nagayama, M.; Suzuki, K.: Evaluation of Feasibility of Hydroxyapatite Putty as a Local Hemostatic Agent for Bone, 542
Morlock, M. See Hahn, M., 354
Moroni, A.
—; Faldini, C.; Pegreffi, F; Giannini, S.: Fixation Strength of Tapered versus Bicylindrical Hydroxyapatite-Coated External Fixation Pins: An Animal Study, 61
Mortemousque, B.
—; Leger, F.; Velou, S.; Graffan, R.; Colin, J.; Korobelnik, J. F.: S/e-PTFE Episcleral Buckling Implants: An Experimental and Histopathologic Study, 686
Munier, S. See El Briak, H., 447
Muratoglu, O. K. See Kurtz, S. M., 15

Nagaoka, K. See Itoh, S., 507
Nagata, N. See Saito, T., 245
Nagayama, M. See Momota, Y., 542
Nahara, Y. See Nomura, Y., 209
Nakamura, T. See Tanaka, K., 262
—; See Uchida, M., 522
Nassutt, R. See Hahn, M., 354
Nawa, M. See Tanaka, K., 262
Nazhat, S. N. See Rich, J., 346
Nilius, M. See Walther, U. I., 643
Nilsson, S. See Esposito, M., 548
Noël, B. See Cornet, F., 400
Nomura, Y.
—; Teshima, W.; Tanaka, N.; Yoshida, Y.; Nahara, Y.; Okazaki, M.: Thermal Analysis of Dental Resins Cured with Blue Light-Emitting Diodes (LEDs), 209
Nurit, J. See El Briak, H., 447

Ochi, M. See Uchio, Y., 173
Ogose, A.
—; Hotta, T.; Hatano, H.; Kawashima, H.; Tokunaga, K.; Endo, N.; Umezu, H.: Histological Examination of β-Tricalcium Phosphate Graft in Human Femur, 601
Oguchi, H. See Hashimoto, M., 306
Ohkubo, C. See Watanabe, I., 760
Ohno, H. See Hashimoto, M., 306
Oka, M. See Tanaka, K., 262
Okabe, T. See Watanabe, I., 760
Okamoto, K. See Mligiliche, N., 591
Okazaki, M. See Nomura, Y., 209
Okuda, K. See Saito, T., 245
Ono, I. See Abe, K., 312
Ooi, C. P.
—; Cameron, R. E.: The Hydrolytic Degradation of Polydioxanone (PDSII) Sutures. Part I: Morphological Aspects, 280
—; Cameron, R. E.: The Hydrolytic Degradation of Polydioxanone (PDSII) Sutures. Part II: Micromechanisms of Deformation, 291
Öttinger, A. P. See Klinge, U., 129

Padera, R. F. See Burdick, J. A., 484
Pantoli, A. N. See Savarino, L., 467
Papathanassopoulou, V. S. See Tsapanos, V. S., 10
Paralika, M. A. See Prombonas, A. E., 605
Parker, D. See Turner, A. S., 37
Park, J. See Park, K., 363
Park, J. B. See Berthusen, A. H., 650
—; See Le, U. T., 24
Park, K.
—; Park, J.: Investigation of Interfacial Strength and Its Structure on the Development of a New Design of UHMWPE Acetabular Component, 363
Pashley, D. H. See Staninec, M., 342
Patrick, C. See Koegler, W. S., 567
Pauvert, B. See El Briak, H., 447
Peerlings, C. C. L.
—; Hanssen, H. H. L.; Bevers, R. T. J.; Boelen, E. J. H.; Stelt, B. J.; Korthagen, E. J. M.; Koole, L. H.: Heparin Release from Slippery-when-Wet Guide Wires for Intravascular Use, 692
Pegreffi, F See Moroni, A., 61
Petschelt, A. See Lohbauer, U., 780
Piroth, C. See Klinge, U., 765
Powers, N. See Turner, A. S., 37

Prahl, S. A. See Moffitt, T. P., 722
Price, C.
—; Waters, M. G. J.; Williams, D. W.; Lewis, M. A. O.; Stickler, D.: Surface Modification of an Experimental Silicone Rubber Aimed at Reducing Initial Candidal Adhesion, 122
Prombonas, A. E.
—; Paralika, M. A.; Sotiriou, M. P.; Vlissidis, D. S.: The Peak-Amplitude Method of Vibration Analysis for Nondestructively Studying the Structural Integrity of Dental Gypsum, 605
Proust, J.-P. See Lu, J., 408

Qu, X.
—; Weinberger, J.: Deposition of $^{90}YPO_4$ and $^{144}CePO_4$ Radioisotopes on Polymer Surfaces for Radiation Delivery Devices, 98

Raschke, M. See Schmidmaier, G., 168
Rawls, H. R. See Yamashita, J., 31
Ray, N. See Gross, K. A., 106
Refojo, M. F. See López-Alemany, A., 319
Reichl, F. X. See Walther, U. I., 643
Ricci, D. R. See Lewis, A. L., 699
Ricci, J. L. See Frenkel, S. R., 706
Rich, J.
—; Tuominen, J.; Kylmä, J.; Seppälä, J.; Nazhat, S. N.; Tanner, K. E.: Lactic Acid Based PEU/HA and PEU/BCP Composites: Dynamic Mechanical Characterization of Hydrolysis, 346
Richardson, D. C. See Schwerin, M. R., 739
Riso, R. See Lawrence, S. M., 501
Rizos, A. K. See Baritaki, S., 830
Robertson, J. D. See Lewis, A. L., 699
Rockwood, C. A. See Mabrey, J. D., 475
Røkkum, M. See Gross, K. A., 106
Ronge, K. See Szep, S., 53
Rooney, F. R. See Mazzaoui, S. A., 299
Rotini, R. See Savarino, L., 467
Rouahi, M. See Cornet, F., 400
Routson, L. B. See Schwerin, M. R., 739
Rupprecht, S. See Wiltfang, J., 115

Saikko, V.
—; Calonius, O.; Keränen, J.: Wear of Conventional and Cross-Linked Ultra-High-Molecular-Weight Polyethylene Acetabular Cups against Polished and Roughened CoCr Femoral Heads in a Biaxial Hip Simulator, 848
Saito, T.
—; Takeuchi, R.; Hirakawa, K.; Nagata, N.; Yoshida, T.; Koshino, T.; Okuda, K.; Takema, M.; Hori, T.: Slow-Releasing Potential of Vancomycin-Loaded Porous Hydroxyapatite Blocks Implanted into MRSA Osteomyelitis, 245
Sakano, S. See Hasegawa, Y., 679
Sanders, J. C. See Belkoff, S. M., 396
Sano, H. See Hashimoto, M., 306
San Román, J. See Vázquez, B., 88
Sarkar, M. R. See Schmidt, C., 252
Sastry, T. P. See Manjubala, I., 200
Savarino, L.
—; Granchi, D.; Ciapetti, G.; Cenni, E.; Pantoli, A. N.; Rotini, R.; Veronesi, C. A.; Baldini, N.; Giunti, A.: Ion Release in Patients with Metal-on-Metal Hip Bearings in Total Joint Replacement: A Comparison with Metal-on-Polyethylene Bearings, 467
Schlegel, K. A. See Wiltfang, J., 115
Schmidmaier, G.
—; Wildemann, B.; Schwabe, P.; Stange, R.; Hoffmann, J.; Südkamp, N. P.; Haas, N. P.; Raschke, M.: A New Electrochemically Graded Hydroxyapatite Coating for Osteosynthetic Implants Promotes Implant Osteointegration in a Rat Model, 168
Schmidt, C.
—; Kaspar, D.; Sarkar, M. R.; Claes, L. E.; Ignatius, A. A.: A Scanning Electron Microscopy Study of Human Osteoblast Morphology on Five Orthopedic Metals, 252
Schneider, E. See Hahn, M., 354
Schultze-Mosgau, S. See Wiltfang, J., 115
Schumpelick, V. See Klinge, U., 765
Schwabe, P. See Schmidmaier, G., 168
Schwerin, M. R.
—; Walsh, D. L.; Richardson, D. C.; Kisielewski, R. W.; Kotz, R. M.; Routson, L. B.; Lytle, C. D.: Biaxial Flex-Fatigue and Viral Penetration of Natural Rubber Latex Gloves Before and After Artificial Aging, 739
Seppälä, J. See Rich, J., 346
Shaw, S.-Y. See Lin, H.-R., 271
Shen, F. W. See Kurtz, S. M., 15
Shen, J. See Ma, Z., 838
Shi, D.
—; Jiang, G.; Bauer, J.: The Effect of Structural Characteristics on the *In Vitro* Bioactivity of Hydroxyapatite, 71
Shin, D. See Chung, K.-H., 516
Shinomiya, K. See Itoh, S., 507
Shtilman, M. I. See Baritaki, S., 830
Sidhu, H. See Malpass, C. A., 822
Silva, V. V.
—; Lameiras, F. S.; Lobato, Z. I. P.: Biological Reactivity of Zirconia-Hydroxyapatite Composites, 583
Simon, J. See Frenkel, S. R., 706
Sinkjær, T. See Lawrence, S. M., 501
Sivakumar, M. See Manjubala, I., 200
Small, S. See Lewis, A. L., 699
Smit, T. H. See van Dijk, M., 752
Son, Y. K. See Hua, F. J., 161
Sotiriou, M. P. See Prombonas, A. E., 605
Spellerberg, B. See Klinge, U., 765
Spiegelberg, S. See Kurtz, S. M., 15
Stabellini, G. See Lilli, C., 577
Staffolani, N. See Lilli, C., 577
Stange, R. See Schmidmaier, G., 168
Staninec, M.
—; Marshall, G. W.; Hilton, J. F.; Pashley, D. H.; Gansky, S. A.; Marshall, S. J.; Kinney, J. H.: Ultimate Tensile Strength of Dentin: Evidence for a Damage Mechanics Approach to Dentin Failure, 342
Stathopoulou, L. P. See Tsapanos, V. S., 10
Stelt, B. J. See Peerlings, C. C. L., 692
Stickler, D. See Price, C., 122
Stumpf, M. See Klinge, U., 129
Südkamp, N. P. See Schmidmaier, G., 168
Sumen, Y. See Uchio, Y., 173
Sureshkumar, R. V. See Manjubala, I., 200
Suvorova, E. I.
—; Buffat, P. A.: Model of the Mechanism of Ca Loss by Bones under Microgravity and Earth Conditions, 424
Suzuki, K. See Momota, Y., 542
Sychterz, C. J. See Mabrey, J. D., 475
Szep, S.
—; Kunkel, A.; Ronge, K.; Heidemann, D.: Cytotoxicity of Modern Dentin Adhesives—In Vitro Testing On Gingival Fibroblasts, 53

Takakuda, K. See Itoh, S., 507
Takechi, M. See Momota, Y., 542
Takema, M. See Saito, T., 245
Takeuchi, R. See Saito, T., 245
Tallroth, K. See Lindfors, N. C., 237
Tamura, J. See Tanaka, K., 262
Tanaka, J. See Itoh, S., 507
Tanaka, K.
—; Tamura, J.; Kawanabe, K.; Nawa, M.; Oka, M.; Uchida, M.; Kokubo, T.; Nakamura, T.: Ce-TZP/Al_2O_3 Nanocomposite as a Bearing Material in Total Joint Replacement, 262
Tanaka, N. See Nomura, Y., 209
Tanner, K. E. See Rich, J., 346
Tashmukhamedov, R. I. See Baritaki, S., 830
Tatehara, S. See Momota, Y., 542
Tay, F. R. See Hashimoto, M., 306
Taylor, S. See Lewis, A. L., 699
Tcharkhtchi, A. See He, Y., 800
Teshima, W. See Nomura, Y., 209
Thian, E. S.
—; Loh, N. H.; Khor, K. A.; Tor, S. B.: *In Vitro* Behavior of Sintered Powder Injection Molded Ti-6Al-4V/HA, 79
Thomsen, P. See Esposito, M., 548
Tien, Y.-T. See Tsai, C.-H., 65
Tokunaga, K. See Ogose, A., 601
Tor, S. B. See Thian, E. S., 79
Triffitt, J. T.

—; Osteogenic Stem Cells and Orthopedic Engineering: Summary and Update, 384
Trotignon, J. P. See He, Y., 800
Tsai, C.-H.
—; Chou, M.-Y.; Jonas, M.; Tien, Y.-T.; Chi, E. Y.: A Composite Graft Material Containing Bone Particles and Collagen in Osteoinduction in Mouse, 65
Tsai, C.-Y. See Huang, T.-H., 814
Tsapanos, V. S.
—; Stathopoulou, L. P.; Papathanassopoulou, V. S.; Tzingounis, V. A.: The Role of Seprafilm™ Bioresorbable Membrane in the Prevention and Therapy of Endometrial Synechiae, 10
Tsatsakis, A. See Baritaki, S., 830
Tucker, R. D. See Berthusen, A. H., 650
—; See Le, U. T., 24
Tunc, D. C. See van Dijk, M., 752
Tuominen, J. See Rich, J., 346
Turner, A. S.
—; Parker, D.; Egbert, B.; Maroney, M.; Armstrong, R.; Powers, N.: Evaluation of a Novel Hemostatic Device in an Ovine Parenchymal Organ Bleeding Model of Normal and Impaired Hemostasis, 37
Turner, J. L. See Kurtz, S. M., 492
Tyas, M. J. See Mazzaoui, S. A., 299
Tzanakakis, G. N. See Baritaki, S., 830
Tzingounis, V. A. See Tsapanos, V. S., 10

Uchida, M.
—; Kim, H.-M.; Kokubo, T.; Fujibayashi, S.; Nakamura, T.: Effect of Water Treatment on the Apatite-Forming Ability of NaOH-Treated Titanium Metal, 522
—; See Tanaka, K., 262
Uchio, Y.
—; Ochi, M.; Sumen, Y.; Adachi, N.; Kawasaki, K.; Iwasa, J.; Katsube, K.: Mechanical Properties of Newly Developed Loop Ligament for Connection between the EndoButton and Hamstring Tendons: Comparison with Ethibond Sutures and EndoButton Tape, 173
Ueng, S. W.-N. See Liu, S.-J., 807
Uhl, A.
—; Mills, R. W.; Vowles, R. W.; Jandt, K. D.: Knoop Hardness Depth Profiles and Compressive Strength of Selected Dental Composites Polymerized with Halogen and LED Light Curing Technologies, 729
Umezu, H. See Ogose, A., 601
Uskoković, D. See Balać, I., 793
Uskoković, P. S. See Balać, I., 793

Vallo, C. I.
—; Flexural Strength Distribution of a PMMA-Based Bone Cement, 226
—; Theoretical Prediction and Experimental Determination of the Effect of Mold Characteristics on Temperature and Monomer Conversion Fraction Profiles During Polymerization of a PMMA-Based Bone Cement, 627
van Dijk, M.
—; Tunc, D. C.; Smit, T. H.; Higham, P.; Burger, E. H.; Wuisman, P. I. J. M.: *In Vitro* and *in Vivo* Degradation of Bioabsorbable PLLA Spinal Fusion Cages, 752
Van Landuyt, P. See Flautre, B., 413
Vázquez, B.
—; Deb, S.; Bonfield, W.; San Román, J.: Characterization of New Acrylic Bone Cements Prepared with Oleic Acid Derivatives, 88
Velou, S. See Mortemousque, B., 686
Verdu, J. See He, Y., 800
Veronesi, C. A. See Savarino, L., 467
Vlissidis, D. S. See Prombonas, A. E., 605
Vowles, R. W. See Uhl, A., 729

Walsh, D. L. See Schwerin, M. R., 739
Walther, S. C. See Walther, U. I., 643
Walther, U. I.
—; Walther, S. C.; Liebl, B.; Reichl, F. X.; Kehe, K.; Nilius, M.; Hickel, R.: Cytotoxicity of Ingredients of Various Dental Materials and Related Compounds in L2- and A549 Cells, 643
Wan, W. K.
—; Campbell, G.; Zhang, Z. F.; Hui, A. J.; Boughner, D. R.: Optimizing the Tensile Properties of Polyvinyl Alcohol Hydrogel for the Construction of a Bioprosthetic Heart Valve Stent, 854
Wang, L.
—; Khor, E.; Wee, A.; Lim, L. Y.: Chitosan-Alginate PEC Membrane as a Wound Dressing: Assessment of Incisional Wound Healing, 610
Wang, X. See Yamashita, J., 31
Warashina, H. See Hasegawa, Y., 679
Watanabe, I.
—; Kiyosue, S.; Ohkubo, C.; Aoki, T.; Okabe, T.: Machinability of Cast Commercial Titanium Alloys, 760
Waters, M. G. J. See Price, C., 122
Wee, A. See Wang, L., 610
Weinberger, J. See Qu, X., 98
Wildemann, B. See Schmidmaier, G., 168
Williams, D. W. See Price, C., 122
Williams, J. L. See Laughlin, G. A., 671
Wiltfang, J.
—; Merten, H. A.; Schlegel, K. A.; Schultze-Mosgau, S.; Kloss, F. R.; Rupprecht, S.; Kessler, P.: Degradation Characteristics of α and β Tri-Calcium-Phosphate (TCP) in Minipigs, 115
Wirth, M. A. See Mabrey, J. D., 475
Wolynec, S. See Lavos-Valereto, I. C., 664
Wright, A. J. See Barralet, J. E., 1
Wright, D. D.
—; Lautenschlager, E. P.; Gilbert, J. L.: The Effect of Processing Conditions on the Properties of Poly(methyl methacrylate) Fibers, 152
Wu, Y.-J. See Lin, H.-R., 271
Wuisman, P. I. J. M. See van Dijk, M., 752

Yamashita, J.
—; Li, X.; Furman, B. R.; Rawls, H. R.; Wang, X.; Agrawal, C. M.: Collagen and Bone Viscoelasticity: A Dynamic Mechanical Analysis, 31
Yang, C. Y. See Lin, H.-R., 271
Yau, S. S. See Kurtz, S. M., 15
Yoshida, T. See Saito, T., 245
Yoshida, Y. See Nomura, Y., 209
Yuasa, T. See Momota, Y., 542

Zafiropoulos, A. See Baritaki, S., 830
Zhang, Z. F. See Wan, W. K., 854

Journal of Biomedical Materials Research (Applied Biomaterials) Subject Index to Volume 63

Abdominal wall repair, 182
Accelerated aging, 739
Accuracy, 15
Acetabular component, 492
Acrylic bone cement, 88, 191, 455
Acrylic bone cements, 627
Activation energy, 209
Acute toxicity tests, 583
Adherence, 765
Adhesions, 326
Alginate, 610
Alloys, 214
α-TCP, 115
Anatase, 522
Animal model, 706
Antibiotic beads, 807
Anticoagulation, 37
Anticorrosion, 786
Antigen presentation, 830
Apatite, 79, 522
Apatite cement, 542
Argon-enhanced electrocautery (AEC), 722
Asherman's syndrome, 10
Atomic force microscopy, 699
Autograft bone, 237

Bacterial infection, 765
Bacterial inhibition, 807
Ball milling, 619
Batch casting, 627
Bearing, 467
β-TCP, 115
β-TCP granules, 413
Bias, 15
Bicylindrical pins, 61
Binder-jet method, 312
Bioactive ceramic, 601
Bioactive glass, 237
Bioactivity, 522
Bioceramic filler, 346
Bioceramics, 408
Biocompatibility, 129, 262, 484, 501, 583, 610, 772, 786, 838
Biocompatibility testing, 214
Biocompatible materials, 686
Biodegradable polymers, 271, 807
Biodegradation, 390, 408, 772
Biological crystals, 433
Biomaterial, 664
Biomedical materials, 10
Biomembranes, 10, 577
Biomineralization, 433
Biominetism, 433
Bioprosthetic heart valve, 854
Biphasic calcium phosphate, 200
BISGMA, 299
Bisphenol A, 299
Bleaching, 535
Blood compatibility, 333
Bond strength, 516
Bone, 384, 424
Bone cement, 152, 226, 396, 408, 800
Bone filling, 200
Bone graft, 601
Bone matrix proteins, 577
Bone remodeling unit, 507
Bone substitute, 237, 619
Bone tissue, 408, 413
Bone tissue engineering, 484
Bone wax, 542
Brachytherapy, 98

CAD/CAM, 780
Calcification, 65
Calcification processes, 390
Calcium oxide, 447
Calcium phosphate, 408, 619
Calcium phosphate cement, 1, 542
Calorimetry, 24
Candida albicans, 122
Carbonated hydroxyapatite, 200
Carbon-dioxide extraction, 567
Carboxymethylcellulose, 326
Cardiac valve, 424
Carrier, 507
Cast titanium alloys, 760
Cell attachment, 271
Cell culture, 214, 814
Cell metabolism, 746
Cell therapy, 384
Cement, 447
Ceramic, 780
Cerium-144, 98
Chitin, 373
Chitosan, 98, 373, 610
Chondrocyte, 838
Coating, 516
Coating degradation, 106
Cobalt chromium alloy, 252
Cold work, 24
Collagen, 37, 793
Collagen denaturation, 31
Collagen sponge, 37
Color difference, 657
Color-measuring geometry, 657
Commercially pure Ti (c.p. Ti), 714
Complex viscosity, 191
Compliance, 671
Compomers, 535
Composite, 793
Composites, 729
Computed tomography, 312
Computer simulations, 627
Conduit, 591
Coronary stents, 699
Corrosion, 354, 467, 664
Cortical bone, 31, 441
Crack growth, 780
Cranioplasty, 312
Cross linking, 492
Cross-linked starch implant, 772
Cross-linking, 848
Cruciate ligament, 173
Crystallinity, 106
Crystallization behavior, 48
Culture, 418
Cure rate, 191
Cytotoxicity, 214, 814
Cytotoxicity tests, 583

Degradation, 15, 280, 291, 306, 679
Degradation characteristics, 115
Degree of crystallinity, 71
Dental alloys, 516
Dental ceramics, 137
Dental composites, 671
Dental implant, 664, 714
Dental materials, 214
Dental resin, 209
Dental resin composite, 657
Dental restorations, 146
Dentin adhesives, 53
Dentin perfusion, 531
Dexamethasone, 400
DFDBA, 65
Dicalcium phosphate dihydrate, 447
Dispersion, 619

Disposable absorbent, 373
Dissolution, 79, 619
Drug delivery system, 245
Dynamic fatigue, 780
Dynamic mechanical analysis, 346
Dynamic rheometry, 191

Effects of *sera*, 400
Elastic modulus, 137
Electric hand piece, 760
Electrochemically graded coating, 168
Electron diffraction, 424
Encrustation, 822
EndoButton, 173
EndoButton tape, 173
Endometrial synechiae, 10
Endothelium, 548
Enzyme immobilization, 822
Ethibond, 173
Experimental uncertainty, 15
Extended-wear contact lenses, 319
External fixation, 61
Extracellular matrix, 591
Extracellular matrix proteins, 400

Failure mechanisms, 354
Fatigue, 559, 739
Ferrofluid, 650
Fibers, 152
Fibrin sealant, 37
Fibrinogen, 548
Fibroblasts, 53, 746
Filament surface, 765
Finite-element analysis, 671, 793
Flaw, 342
Flexing, 739
Flexural strength, 226
FLODEC, 531
Fluoramphibole glass–ceramics, 48
Fluorescence microscopy, 115
Fluoride release, 535
Fourier-transform infrared spectroscopy (FTIR), 15
Fractographic analysis, 306
Fracture, 137, 291, 342, 679
Fracture pattern, 363
Fracture toughness, 559
Freeze–thaw, 854

Gamma irradiation, 559
Gelation, 161
Gentamicin, 226
Gentamicin sulfate, 800
Glutathione, 746
Gold particles, 643
Growth factor, 706
Guide wire, 692

HA-based composite, 714
Hardness, 137
HEMA, 299, 643
Hemodialysis, 333
Hemostatic agents, 542
Hemostatic device, 37
Heparin release, 692
High load bearing, 752
High-resolution electron microscopy (HREM), 433
High-resolution transmission electron microscopy, 424
Histology, 413
Histomorphometric analysis, 413
Hollow fiber, 333
h-p refinement, 671
Human, 601
Human amnion, 591
Human osteoblasts, 577
Human pulp odontoblast differentiation, 418
Hybrid layer, 306
Hydrogel contact lenses, 319
Hydrolysis, 280, 291
Hydrophilic coating, 692
Hydroxyapatite, 1, 61, 168, 312, 424, 433, 664, 793
Hydroxyapatite coatings, 106
Hydroxyapatite putty, 542
Hydroxyapatite/type I collagen (HAp/Col) composite, 507
Hydroxylapatite (HA), 71
Hyperthermia, 24

Immunoglobulin, 830
Immunohistochemistry, 548
Implant, 467, 507
Implant loosening, 706
Implant osteointegration, 168
Implantation, 65
In situ formation, 484
In vitro, 577
In vitro and *in vivo* degradation, 752
In vivo elution, 807
In vivo test, 714
Infertility, 10
Injectable calcium phosphate cement, 413
Interfacial strength, 363
Interfacial structure, 363
Interfibrillar, 291
Interlamellar, 291
Internal fixation, 679
Interstitial hyperthermia, 650
Interstitial thermal rod, 24
Intracoronary radiation, 98
Intrafascicular electrodes, 501

Joint prosthesis, 706

Knoop hardness, 209, 729

Lactic acid, 346
Lamb's wave, 441
Laser ablation high-resolution inductively coupled plasma mass spectometery, 699
Laser extraction, 548
Laser lithography, 312
Latex, 739
Layer structures, 137
LED, 729
Light curing unit (LCU), 729
Light scattering, 830
Light-emitting diodes (LEDs), 209
Liver trauma, 722
Loop ligament, 173
Loss tangent, 31
Lumbar interbody fusion, 752
Lung cells, 643
Lysozyme, 220

Machinability, 146, 760
Machining efficiency, 760
Macroporous scaffold, 161
Material design, 137
Material properties, 396
Mechanical and rheological properties, 447
Mechanical properties, 1
Mechanical property, 262
Mechanical testing, 226, 354
Medical care, 373
Mercury compounds, 643
Mesh repair, 182
Mesothelium, 182
Metal bracket, 786
Metal ions, 467
Metal-on-metal, 467
2-Methacryloyloxyethyl phosphorylcholine polymer, 333
Methicillin-resistant Staphylococcus aureus, 245
Methodology, 531
Mica glass-ceramics, 146
Microhardness, 535
Microprobe analysis, 516
Microstructure, 1, 146
Microtensile bond test, 306
Miniature test specimens, 455
Minipig, 115, 679
Moisture, 31
Monofilament, 129, 765
Monomers, 299
Monomer-to-powder ratio, 396

Morphology, 424, 475
Multifilament, 765

NaOH treatment, 522
Natural macromolecules, 838
Neuroprosthetics, 501
4-N,N dimethylaminobenzyl oleate (DMAO), 88
Nonfouling property, 333

Octacalcium phosphate, 424
Oleyloxyethyl methacrylate (OMA), 88
Onset of cure, 191
o-Phosphoric acid, 98
Orthodontic bonding adhesives, 814
Orthopedic biomaterials, 484
Orthopedic engineering, 384
Osteoblast morphology, 252
Osteoconduction, 390
Osteogenesis, 200, 384
Osteoinduction, 65, 390
Osteomyelitis, 245
Oxalate, 822
Oxidation, 15

Pacemakers, 548
Particles, 106, 475
PDS, 280, 291
PDSII, 280, 291
Peripheral nerve, 501
Peripheral nerve regeneration, 591
Peritoneal adhesions, 182
Permeability, 531
Permeation, 220
Personal care, 373
PET, 98
Phosphorylcholine coating, 699
Photopolymerization, 484
Physical and mechanical properties, 88
Plasma, 822
PLLA, 161
PMMA, 152
PMMA precoated UHMWPE, 363
Pokeweed mitogen, 830
Poly(ϵ-caprolactone), 220
Polydioxanone, 280, 291
Polyelectrolyte complex, 610
Poly(ester-urethane), 346
Polyethylene, 559
Poly(ethylene glycol), 220
Polyethylene oxide, 326
Poly(lactic-co-glycolic acid), 271
Poly-L-lactic acid, 752, 838
Poly-L-lactide, 679, 793
Poly(L-lactide-co-glycolide), 567
Polymer alloy, 333
Polymerization, 729
Poly(methylmethacrylate), 800
Polymethylmethacrylate (PMMA), 396
Polypropylene, 129
Polysulfone, 333
Polyvinyl alcohol hydrogel, 854
Porosity, 1, 319
Porous films, 220
Porous hydroxyapatite block, 245
Powder particle size, 191
Precipitation, 79
Precision, 15
Processing, 619
Proliferation, 830
Prostate cancer, 24
Prostate carcinoma, 650
Prosthesis composite, 182
Protein partitioning, 326
Push-out test, 168
PVP, 830

Rabbit, 408
Rabbit bone marrow stromal cells, 400
Rapid prototyping, 312
Rat model, 168
Rats, 772
Recombinant human bone morphogenetic protein (rhBMP), 507
Release, 299
Release rate, 807
Repeatability, 15
Reproducibility, 15
Residual monomer, 627
Residual solvent, 567
Resin composites, 299
Resinous monomers, 418
Resorbable, 280, 291
Retinal detachment surgery, 686
Root canal filler, 447
Roughness, 492

SAM, 373
SAP, 373
Scaffolds, 271
Scanning electron microscopy, 252
Scanning electron microscopy (SEM), 319
Scleral buckling, 686
SEM, 535
Seprafilm™, 10
Silicone hydrogels, 319
Silicone rubber, 122
Silicone/polytetrafluoroethylene, 686
Siloxane hydrogels, 319
Simulated body fluid (SBF), 79
Simulated perfusion, 531
Skin irritation assay, 583
Small punch test, 455
Small shear punch test, 455
Sodium, 48
Solder, 722
Spinal fusion, 237
Spinal fusion cage, 752
Spine implants, 354
SPT diagram, 780
Stainless steel, 61, 252
Static compression properties, 800
Stem cells, 384
Stent, 854
Sterilization, 346
Strength, 137
Stress relaxation, 854
Structure, 424
Superabsorbent, 373
Surface area, 71
Surface chemistry, 122
Surface condition, 657
Surface modification, 838
Surface profile imaging, 433
Surface roughness, 657, 848
Surface topology, 492
Surgical mesh, 129, 765
Suture, 280, 291

Tapered pins, 61
TEGDMA, 299, 643, 746
Temperature evolution, 627
Tensile, 854
Tensile deformation, 291
Tensile tests, 152
Textured surface, 706
TGFβ_1, 577
Thermal ablation, 650
Thermal analysis, 209
Thermally induced phase separation, 161
ThermoRod™, 650
Third-body wear, 106
Three-Dimensional Printing™, 567
Tissue engineering, 271
Tissue reaction, 772
Tissue response, 129
Tissue welding, 722
Tissue-engineering scaffolds, 567
Titanium, 522
Titanium alloy, 252, 664
Titanium alloy-hydroxyapatite (Ti-6Al-4V/HA), 79
Titanium-aluminum nitride film, 516
Titanium-nitride plating, 786
Tooth, 342
Tooth dentin, 418
Torque, 714

Total hip prosthesis, 848
Total hip replacement, 492
Total joint prosthesis, 262
Total joints, 475
Toughness, 137
Toxicity, 53
Toxicology, 643
Triaxial stress, 671
Tricalcium phosphate, 200, 601
Two-dimensional electrophoresis, 400

UHMWPE, 475
UHMWPE acetabular cup, 363
Ultra-high molecular weight polyethylene (UHMWPE), 15
Ultra-high molecular-weight polyethylene (UHMWPE), 492
Ultra-high-molecular-weight polyethylene, 455, 848
Ultrasonic velocity, 441
Urological biomaterials, 822
Uterine adhesions, 10

Vancomycin, 245
Viral penetration, 739
Visceral peritoneum, 182
Viscoelasticity, 31

Water storage testing, 306
Water treatment, 522
Water wettability, 122
Waviness, 492
Wear, 354, 475, 492, 848
Wear property, 262
Weibull modulus, 342
Weibull statistics, 226
Wound dressing, 610

Young's modulus, 441
Yttrium-90, 98

Zirconia/alumina composite, 262
Zirconia-hydroxyapatite composites as implants and medical devices, 583